

**REMARKS**

Claims 1-5, 8-10, 13-15, 17-23 and 31-34 are pending in this application. By this Amendment, claims 1, 4 and 5 are amended, claims 32-34 are added and claims 6, 7, 11, 12, 16 and 24-30 are canceled without prejudice to or disclaimer of the subject matter recited therein. No new matter is added. Reconsideration and withdrawal of the rejections are respectfully requested.

Applicants thank the Examiner for the indication that claims 11, 12 and 16 contain allowable subject matter. New independent claims 32 and 34 incorporate the allowable features of dependent claims 11 and 16, respectively, in independent form. Claims 32 and 34, and claim 33 dependent from claim 32, are thus allowable.

**I. The Office Action Should Be Non-Final**

The status of the Office Action is identified on the cover of the Office Action as "final." However, as this is the first office Action on the merits, finality is improper. Withdrawal of the finality of the Action is respectfully requested.

**II. Rejection Under 35 U.S.C. §112, Second Paragraph**

The Office Action rejects claims 4 and 5 under 35 U.S.C. §112, second paragraph. Claims 4 and 5 are amended to obviate the rejection. Support for the amendments to claims 4 and 5 can be found in the specification at, for example, page 3, line 38 - page 4, line 6. Withdrawal of the rejection is respectfully requested.

**III. The Claims Define Patentable Subject Matter**

The Office Action rejects claims 1-5, 8, 9, 17, 18, 20, 23 and 31 under 35 U.S.C. §102(b), or in the alternative, under 35 U.S.C. §103(a) over the publication "Salient-Rotor PM Synchronous Motors for an Extended Flux-Weakening Operation Range" to Bianchi et al. (Bianchi); rejects claims 1, 2, 8, 9, 17, 18, 20, 23 and 31 under 35 U.S.C. §102(b) over European Patent Application No. EP 1,164,684 to Yamamoto et al. (Yamamoto) or in the

alternative, over DE 19723302 to Anmelder; rejects claims 1, 2, 8, 9, 13, 15, 17, 18, 20, 23 and 31 under 35 U.S.C. §102(b) over DE 3016540 to Popov et al. (Popov); and rejects claims 6, 7, 10, 14, 19 and 22 under 35 U.S.C. §103(a) over Bianchi, Yamamoto, Anmelder or Popov further in view of U.S. Patent No. 6,265,804 to Nitta et al. (Nitta). These rejections are respectfully traversed.

Independent claim 1 recites, *inter alia*, "the motor is configured so as to have  $X_d > X_q$ , where  $X_d$  is the direct reactance and  $X_q$  is the quadrature reactance," and "the teeth of the stator are devoid of pole shoes." Support for the amendment can be found in original claims 6 and 7.

The passage of Bianchi relied on for disclosing the stator discloses a stator provided with pole shoes (see Figs. 9 and 10 of Bianchi).

As discussed above, Bianchi discloses a stator provided with pole shoes. There is no suggestion in Bianchi for replacing the teeth with teeth devoid of pole shoes. Furthermore, Bianchi aims at studying the influence of the saliency ratio of the rotor with flux-weakening performances (see Abstract). Consequently, one of ordinary skill in the art in the field of Bianchi would not have considered use of the rotors disclosed by Nitta for providing rotors with smooth poles. Thus, there would have been no reason to combine Bianchi and Nitta absent impermissible hindsight.

Yamamoto, Anmelder and Popov fail to teach or suggest a stator and, therefore, cannot disclose a stator devoid of pole shoes. Because Yamamoto, Anmelder and Popov fail to teach or suggest a stator, there would have been no reason to combine Yamamoto, Anmelder or Popov in view of Nitta absent impermissible hindsight.

Accordingly, the applied references fail to teach or suggest the recited features of independent claim 1.

For at least these reasons, independent claim 1 and the claims dependent therefrom are patentable over the applied references. Withdrawal of the rejections of the claims is respectfully requested.

**IV. Conclusion**

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,



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Date: September 27, 2007

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